

1. A method of extracting electrical energy from mechanical motion, comprising:
reusing an elastic portion of energy in a transducer by transferring the elastic portion of energy to another transducer.

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2. An apparatus for extracting electrical energy from mechanical motion, comprising:

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at least two transducers coupled such that an elastic portion of energy in one transducer is transferable to the other transducer.

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3. The apparatus of claim 2 further comprising a member coupling the transducers.

4. The apparatus of claim 3 wherein the member defines a waved surface and each transducer defines a coupler in contact with the waved surface for movement following the waved surface.

5. The apparatus of claim 4 wherein the coupler contacts the waved surface on a first side of the coupler, and the member defines a second waved surface, the coupler contacting the second waved surface on a second side of the coupler opposite the first side.

6. The apparatus of claim 4 wherein couplers of two transducers are positioned such that they move out-of-phase relative to each other.

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7. The apparatus of claim 4 wherein the waves surface is sinusoidal.

8. The apparatus of claim 2 wherein the transducers are bound to a plate.

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9. The apparatus of claim 8 wherein the plate is positioned between members such that the plate is deformed.

10. The apparatus of claim 9 wherein the plate and members are configured such that relative rotation therebetween produces a wave that travels along the plate.